DEPARTMENT OF ENERGY

10 CFR Part 431

[EERE-2017-BT-STD-0022]

RIN 1904-AE47

Energy Conservation Program: Energy Conservation Standards for Automatic Commercial Ice Makers

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Notification of availability of preliminary technical support document and request for comment.

SUMMARY: The U.S. Department of Energy ("DOE") announces the availability of the preliminary analysis it has conducted for purposes of evaluating the need for amended energy conservation standards for automatic commercial ice makers, which is set forth in the Department's preliminary technical support document ("TSD") for this rulemaking. DOE will hold a public meeting via webinar to discuss and receive comment on its preliminary analysis. The meeting will cover the analytical framework, models, and tools used to evaluate potential standards for this equipment, the results of preliminary analyses performed by DOE, the potential energy conservation standard levels derived from these analyses (if DOE determines that proposed amendments are necessary), and other relevant issues. In addition, DOE encourages written comments on these subjects.

DATES: *Comments*: Written comments and information will be accepted on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

Meeting: DOE will hold a webinar on Monday, April 25, 2022, from 1:00 p.m. to 4:00 p.m. See section IV, "Public Participation," for webinar registration information, participant instructions, and information about the capabilities available to webinar participants.

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at *www.regulations.gov* under docket number EERE–2017–BT–STD–0022. Follow the instructions for submitting comments. Alternatively, comments may be submitted by e-mail to: *ACIM2017STD0022@ee.doe.gov*. Include docket number EERE–2017–BT–STD–0022 in the subject line of the message.

No telefacsimiles ("faxes") will be accepted. For detailed instructions on submitting comments and additional information on this process, see section IV of this document.

Although DOE has routinely accepted public comment submissions through a variety of mechanisms, including the Federal eRulemaking Portal, email, postal mail and hand delivery/courier, the Department has found it necessary to make temporary modifications to the comment submission process in light of the ongoing COVID-19 pandemic. DOE is currently suspending receipt of public comments via postal mail and hand delivery/courier. If a commenter finds that this change poses an undue hardship, please contact Appliance Standards Program staff at (202) 586-1445 to discuss the need for alternative arrangements. Once the COVID-19 pandemic health emergency is

resolved, DOE anticipates resuming all of its regular options for public comment submission, including postal mail and hand delivery/courier.

To inform interested parties and to facilitate this rulemaking process, DOE has prepared an agenda, a preliminary TSD, and briefing materials, which are available on the DOE website at: *www.regulations.gov/docket/EERE-2020-BT-STD-0014*.

Docket: The docket for this activity, which includes *Federal Register* notices, comments, and other supporting documents/materials, is available for review at *www.regulations.gov*. All documents in the docket are listed in the *www.regulations.gov* index. However, not all documents listed in the index may be publicly available, such as those containing information that is exempt from public disclosure.

The docket web page can be found at *www.regulations.gov/#!docketDetail;D=EERE-2017-BT-STD-0022*. The docket web page contains instructions on how to access all documents, including public comments in the docket. See section IV for information on how to submit comments through *www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Dr. Stephanie Johnson, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies, EE-2J, 1000 Independence Avenue, SW., Washington, DC 20585-0121. Email: *ApplianceStandardsQuestions@ee.doe.gov.*

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For further information on how to submit a comment, review other public comments and the docket, contact the Appliance and Equipment Standards Program staff at (202) 287-1445 or by email: *ApplianceStandardsQuestions@ee.doe.gov*.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Introduction

A. Authority

The Energy Policy and Conservation Act, as amended ("EPCA"),[1] authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C. 6291–6317) Title III, Part C[2] of EPCA, added by Pub. L. 95-619, Title IV, section 441(a) (42 U.S.C. 6311-6317, as codified), established the

[1] All references to EPCA in this document refer to the statute as amended through the Infrastructure Investment and Jobs Act, Pub. L. 117-58 (Nov. 15, 2021).
[2] For editorial reasons, upon codification in the U.S. Code, Part C was redesignated Part A-1.

Energy Conservation Program for Certain Industrial Equipment. This equipment includes automatic commercial ice makers, the subject of this document. (42 U.S.C. 6311(1)(F))

EPCA prescribed the initial energy and water conservation standards for automatic commercial ice makers. (42 U.S.C. 6313(d)(1)) EPCA also authorizes DOE to establish new standards for automatic commercial ice makers not covered by the statutory standards. (42 U.S.C. 6313(d)(2)) Not later than January 1, 2015, with respect to the standards established under 42 U.S.C. 6313(d)(1), and, with respect to the standards established under 42 U.S.C. 6313(d)(2), not later than 5 years after the date on which the standards take effect, EPCA required DOE to issue a final rule to determine whether amending the applicable standards is technologically feasible and economically justified. (42 U.S.C. 6313(d)(3)(A)) Not later than 5 years after the effective date of any amended standards under 42 U.S.C. 6313(d)(3)(A) or the publication of a final rule determining that amending the standards is not technologically feasible or economically justified, DOE must issue a final rule to determine whether amending the standards established under 42 U.S.C. 6313(d)(1) or the amended standards, as applicable, is technologically feasible or economically justified. (42 U.S.C. 6313(d)(3)(B)) A final rule issued under 42 U.S.C. 6313(d)(2) or (3) must establish standards at the maximum level that is technically feasible and economically justified, as provided in 42 U.S.C. 6295(o) and (p). (42 U.S.C. 6313(d)(4))

EPCA further provides that, not later than 6 years after the issuance of any final rule establishing or amending a standard, DOE must publish either a notification of determination that standards for the product do not need to be amended, or a notice of proposed rulemaking ("NOPR") including new proposed energy conservation standards

(proceeding to a final rule, as appropriate). (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(1)) Not later than three years after issuance of a final determination not to amend standards, DOE must publish either a notice of determination that standards for the product do not need to be amended, or a NOPR including new proposed energy conservation standards (proceeding to a final rule, as appropriate). (42 U.S.C. 6316(a); 42 U.S.C. 6295(m)(3)(B))

Under EPCA, any new or amended energy conservation standard must be designed to achieve the maximum improvement in energy efficiency that DOE determines is technologically feasible and economically justified. (42 U.S.C. 6316(a); 42 U.S.C. 6295(o)(2)(A)) Furthermore, the new or amended standard must result in a significant conservation of energy. (42 U.S.C. 6316(a); 42 U.S.C. 6295(o)(3)(B))

DOE is publishing this preliminary analysis to collect data and information to inform its decision consistent with its obligations under EPCA.

B. Rulemaking Process

DOE must follow specific statutory criteria for prescribing new or amended standards for covered equipment, including automatic commercial ice makers. As noted, EPCA requires that any new or amended energy conservation standard prescribed by the Secretary of Energy ("Secretary") be designed to achieve the maximum improvement in energy efficiency (or water efficiency for certain equipment specified by EPCA) that is technologically feasible and economically justified. (42 U.S.C. 6316(a); 42 U.S.C. 6295(o)(2)(A)) Furthermore, DOE may not adopt any standard that would not result in the significant conservation of energy. (42 U.S.C. 6316(a); 42 U.S.C. 6295(o)(3))

The significance of energy savings offered by a new or amended energy conservation standard cannot be determined without knowledge of the specific circumstances surrounding a given rulemaking.[3] For example, the United States rejoined the Paris Agreement on February 19, 2021. As part of that agreement, the United States has committed to reducing GHG emissions in order to limit the rise in mean global temperature.[4] As such, energy savings that reduce GHG emissions have taken on greater importance. Additionally, some covered products and equipment have most of their energy consumption occur during periods of peak energy demand. The impacts of these products on the energy infrastructure can be more pronounced than products or equipment with relatively constant demand. In evaluating the significance of energy savings, DOE considers differences in primary energy and full-fuel cycle ("FFC") effects for different covered products and equipment when determining whether energy savings are significant. Primary energy and FFC effects include the energy consumed in electricity production (depending on load shape), in distribution and transmission, and in extracting, processing, and transporting primary fuels (*i.e.*, coal, natural gas, petroleum fuels), and thus present a more complete picture of the impacts of energy conservation standards. Accordingly, DOE evaluates the significance of energy savings on a case-by-case basis, taking into account the significance of cumulative FFC national energy savings, the cumulative FFC emissions reductions, and the need to confront the global climate crisis, among other factors.

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[3] Procedures, Interpretations, and Policies for Consideration in New or Revised Energy Conservation Standards and Test Procedures for Consumer Products and Commercial/Industrial Equipment, 86 FR 70892, 70901 (Dec. 13, 2021).

[4] See Executive Order 14008, 86 FR 7619 (Feb. 1, 2021) ("Tackling the Climate Crisis at Home and Abroad").

DOE has initially determined the energy savings estimated for the candidate standard levels considered in this preliminary analysis are "significant" within the meaning of 42 U.S.C. 6295(o)(3)(B).

To determine whether a standard is economically justified, EPCA requires that DOE determine whether the benefits of the standard exceed its burdens by considering, to the greatest extent practicable, the following seven factors:

(1) The economic impact of the standard on the manufacturers and consumers of the products subject to the standard;

(2) The savings in operating costs throughout the estimated average life of the covered products in the type (or class) compared to any increase in the price, initial charges, or maintenance expenses for the covered products that are likely to result from the standard;

(3) The total projected amount of energy (or as applicable, water) savings likely to result directly from the standard;

(4) Any lessening of the utility or the performance of the products likely to result from the standard;

(5) The impact of any lessening of competition, as determined in writing by the Attorney General, that is likely to result from the standard;

(6) The need for national energy and water conservation; and

(7) Other factors the Secretary of Energy (Secretary) considers relevant.

(42 U.S.C. 6316(a); 42 U.S.C. 6295(o)(2)(B)(i)(I)-(VII))

DOE fulfills these and other applicable requirements by conducting a series of analyses throughout the rulemaking process. Table I.1 shows the individual analyses that are performed to satisfy each of the requirements within EPCA.

Table I.1 EPCA Requirements and Corresponding DOE Analysis

EPCA Requirement	Corresponding DOE Analysis
Significant Energy Savings	• Shipments Analysis • National Impact Analysis • Energy and Water Use Analysis
Technological Feasibility	• Market and Technology Assessment • Screening Analysis • Engineering Analysis
Economic Justification:	
1. Economic impact on manufacturers and consumers	• Manufacturer Impact Analysis • Life-Cycle Cost and Payback Period Analysis • Life-Cycle Cost Subgroup Analysis • Shipments Analysis
2. Lifetime operating cost savings compared to increased cost for the product	• Markups for Product Price Analysis • Energy and Water Use Analysis • Life-Cycle Cost and Payback Period Analysis
3. Total projected energy savings	• Shipments Analysis • National Impact Analysis
4. Impact on utility or performance	• Screening Analysis • Engineering Analysis
5. Impact of any lessening of competition	• Manufacturer Impact Analysis
6. Need for national energy and water conservation	• Shipments Analysis • National Impact Analysis
7. Other factors the Secretary considers relevant	• Employment Impact Analysis • Utility Impact Analysis • Emissions Analysis • Monetization of Emission Reductions Benefits[5]

[5] On March 16, 2022, the Fifth Circuit Court of Appeals (No. 22-30087) granted the federal government's emergency motion for stay pending appeal of the February 11, 2022, preliminary injunction issued in Louisiana v. Biden, No. 21-cv-1074-JDC-KK (W.D. La.). As a result of the Fifth Circuit's order, the preliminary injunction is no longer in effect, pending resolution of the federal government's appeal of that injunction or a further court order. The preliminary injunction enjoined the federal government from

EPCA Requirement	Corresponding DOE Analysis
	• Regulatory Impact Analysis

Further, EPCA establishes a rebuttable presumption that a standard is economically justified if the Secretary finds that the additional cost to the consumer of purchasing a product complying with an energy conservation standard level will be less than three times the value of the energy savings during the first year that the consumer will receive as a result of the standard, as calculated under the applicable test procedure. (42 U.S.C. 6316(a); 42 U.S.C. 6295(o)(2)(B)(iii))

EPCA also contains what is known as an "anti-backsliding" provision, which prevents the Secretary from prescribing any amended standard that either increases the maximum allowable energy use or decreases the minimum required energy efficiency of a covered product. (42 U.S.C. 6316(a); 42 U.S.C. 6295(o)(1)) Also, the Secretary may not prescribe an amended or new standard if interested persons have established by a preponderance of the evidence that the standard is likely to result in the unavailability in the United States in any covered product type (or class) of performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as those generally available in the United States. (42 U.S.C. 6316(a); 42 U.S.C. 6295(o)(4))

Additionally, EPCA specifies requirements when promulgating an energy conservation standard for a covered product that has two or more subcategories. DOE

relying on the interim estimates of the social cost of greenhouse gases—which were issued by the Interagency Working Group on the Social Cost of Greenhouse Gases on February 26, 2021—to monetize the benefits of reducing greenhouse gas emissions. In the absence of further intervening court orders, DOE will revert to its approach prior to the injunction and present monetized benefits in accordance with applicable Executive Orders.

must specify a different standard level for a type or class of product that has the same function or intended use, if DOE determines that products within such group: (A) consume a different kind of energy from that consumed by other covered products within such type (or class), or (B) have a capacity or other performance-related feature which other products within such type (or class) do not have and such feature justifies a higher or lower standard. (42 U.S.C. 6316(a); 42 U.S.C. 6295(q)(1)) In determining whether a performance-related feature justifies a different standard for a group of products, DOE must consider such factors as the utility to the consumer of the feature and other factors DOE deems appropriate. *Id*. Any rule prescribing such a standard must include an explanation of the basis on which such higher or lower level was established. (42 U.S.C. 6316(a); 42 U.S.C. 6295(q)(2))

Before proposing a standard, DOE typically seeks public input on the analytical framework, models, and tools that DOE intends to use to evaluate standards for the equipment at issue and the results of preliminary analyses DOE performed for the equipment.

DOE is examining whether to amend the current standards pursuant to its obligations under EPCA. This notification announces the availability of the preliminary TSD, which details the preliminary analyses and summarizes the preliminary results of DOE's analyses. In addition, DOE is announcing a public meeting to solicit feedback from interested parties on its analytical framework, models, and preliminary results.

C. Deviation from Appendix A

In accordance with section 3(a) of 10 CFR part 430, subpart C, appendix A ("appendix A"), DOE notes that it is deviating from the provision in appendix A

regarding the pre-NOPR stages for an energy conservation standards rulemaking. Section 6(a)(2) of appendix A states that if the Department determines it is appropriate to proceed with a rulemaking (after initiating the rulemaking process through an early assessment), the preliminary stages of a rulemaking to issue or amend an energy conservation standard that DOE will undertake will be a framework document and preliminary analysis, or an advance notice of proposed rulemaking ("ANOPR"). DOE is opting to deviate from this step by publishing a preliminary analysis without a framework document. A framework document is intended to introduce and summarize the various analyses DOE conducts during the rulemaking process and requests initial feedback from interested parties. As discussed further in the following section, prior to this notification of the preliminary analysis, DOE issued an early assessment request for information ("RFI") in which DOE identified and sought comment on the analyses conducted in support of the most recent energy conservation standards rulemaking (80 FR 4646; Jan. 28, 2015 (the "January 2015 Final Rule")). 85 FR 60923, 60295 (Sept. 29, 2020) (the "September 2020 RFI"). DOE provided a 75-day comment period for the early assessment RFI. 85 FR 60923. As DOE is intending to rely on substantively the same analytical methods as in the most recent rulemaking, publication of a framework document would be largely redundant with the published early assessment RFI. As such, DOE is not publishing a framework document.

Section 6(d)(2) of appendix A specifies that the length of the public comment period for pre-NOPR rulemaking documents will vary depending upon the circumstances of the particular rulemaking, but will not be less than 75 calendar days. For this preliminary analysis, DOE has opted to instead provide a 60-day comment period. As stated, DOE requested comment in the September 2020 RFI on the analysis conducted in support of the January 2015 Final Rule and provided stakeholders a 75-day comment

period. For this preliminary analysis, DOE has relied on many of the same analytical assumptions and approaches as used in the previous rulemaking and has determined that a 60-day comment period in conjunction with the prior 75-day comment period provides sufficient time for interested parties to review the preliminary analysis and develop comments.

II. Background

A. Current Standards

In the January 2015 Final Rule, DOE prescribed the current energy conservation standards for automatic commercial ice makers manufactured on and after January 28, 2018. 80 FR 4646. These standards are set forth in DOE's regulations at 10 CFR 431.134(c) and (d) and are repeated in Table II.1 and Table II.2.

Table II.1 Federal Energy Conservation Standards for Batch Automatic Commercial Ice Makers

Equipment Type	Condenser Cooling	Harvest Rate *lb ice/24 h*	Maximum Energy Use *kWh/100lbs ice*	Maximum Condenser Water Use** *gal/100lbs ice*
Ice-Making Head	Water	<300	6.88-0.0055H*	200-0.022H
Ice-Making Head	Water	≥300 and <850	5.80-0.00191H	200-0.022H
Ice-Making Head	Water	≥850 and <1,500	4.42-0.00028H	200-0.022H
Ice-Making Head	Water	≥1,500 and <2,500	4	200-0.022H
Ice-Making Head	Water	≥2,500 and <4,000	4	145
Ice-Making Head	Air	<300	10-0.01233H	NA
Ice-Making Head	Air	≥300 and <800	7.05-0.0025H	NA
Ice-Making Head	Air	≥800 and <1,500	5.55-0.00063H	NA
Ice-Making Head	Air	≥1500 and <4,000	4.61	NA
Remote Condensing (but Not Remote Compressor)	Air	<988	7.97-0.00342H	NA
Remote Condensing (but Not Remote Compressor)	Air	≥988 and <4,000	4.59	NA
Remote Condensing and Remote Compressor	Air	<930	7.97-0.00342H	NA
Remote Condensing and Remote Compressor	Air	≥930 and <4,000	4.79	NA
Self-Contained	Water	<200	9.5-0.019H	191-0.0315H
Self-Contained	Water	≥200 and <2,500	5.7	191-0.0315H
Self-Contained	Water	≥2,500 and <4,000	5.7	112
Self-Contained	Air	<110	14.79-0.0469H	NA
Self-Contained	Air	≥110 and <200	12.42-0.02533H	NA
Self-Contained	Air	≥200 and <4,000	7.35	NA

* H = harvest rate in pounds per 24 hours, indicating the water or energy use for a given harvest rate. Source: 42 U.S.C. 6313(d).

** Water use is for the condenser only and does not include potable water used to make ice.

Table II.2 Federal Energy Conservation Standards for Continuous Automatic Commercial Ice Makers

Equipment Type	Condenser Cooling	Harvest Rate *lb ice/24 h*	Maximum Energy Use *kWh/100 lbs ice*	Maximum Condenser Water Use *gal/100 lbs ice*
Ice-Making Head	Water	<801	6.48-0.00267H	180-0.0198H
Ice-Making Head	Water	≥801 and <2,500	4.34	180-0.0198H
Ice-Making Head	Water	≥2,500 and <4,000	4.34	130.5
Ice-Making Head	Air	<310	9.19-0.00629H	NA
Ice-Making Head	Air	≥310 and <820	8.23-0.0032H	NA
Ice-Making Head	Air	≥820 and <4,000	5.61	NA
Remote Condensing (but Not Remote Compressor)	Air	<800	9.7-0.0058H	NA
Remote Condensing (but Not Remote Compressor)	Air	≥800 and <4,000	5.06	NA
Remote Condensing and Remote Compressor	Air	<800	9.9-0.0058H	NA
Remote Condensing and Remote Compressor	Air	≥800 and <4,000	5.26	NA
Self-Contained	Water	<900	7.6-0.00302H	153-0.0252H
Self-Contained	Water	≥900 and <2,500	4.88	153-0.0252H
Self-Contained	Water	≥2,500 and <4,000	4.88	90
Self-Contained	Air	<200	14.22-0.03H	NA
Self-Contained	Air	≥200 and <700	9.47-0.00624H	NA
Self-Contained	Air	≥700 and <4,000	5.1	NA

B. Current Process

In the September 2020 RFI, DOE published a notification that it was initiating an early assessment review to determine whether any new or amended standards would satisfy the relevant requirements of EPCA for a new or amended energy conservation standard for automatic commercial ice makers as well as a request for information. 85 FR 60923.

Comments received to date as part of the current process have helped DOE identify and resolve issues related to the preliminary analyses. Chapter 2 of the preliminary TSD summarizes and addresses the comments received.

III. Summary of the Analyses Performed by DOE

For the equipment covered in this preliminary analysis, DOE conducted in-depth technical analyses in the following areas: (1) engineering, (2) markups to determine product price, (3) energy use, (4) life-cycle cost ("LCC") and payback period ("PBP"), and (5) national impacts. The preliminary TSD that presents the methodology and results of each of these analyses is available at *www.regulations.gov/#!docketDetail;D=EERE-2017-BT-STD-0022*.

DOE also conducted, and has included in the preliminary TSD, several other analyses that support the major analyses or are preliminary analyses that will be expanded if DOE determines that a NOPR is warranted to propose amended energy conservation standards. These analyses include (1) the market and technology assessment; (2) the screening analysis, which contributes to the engineering analysis; and (3) the shipments analysis, which contributes to the LCC and PBP analysis and the national impact analysis ("NIA"). In addition to these analyses, DOE has begun preliminary work on the manufacturer impact analysis and has identified the methods to be used for the consumer subgroup analysis, the emissions analysis, the employment impact analysis, the regulatory impact analysis, and the utility impact analysis. DOE will expand on these analyses in the NOPR should one be issued.

A. Market and Technology Assessment

DOE develops information in the market and technology assessment that provides an overall picture of the market for the equipment concerned, including general characteristics of the equipment, the industry structure, manufacturers, market characteristics, and technologies used in the equipment. This activity includes both

quantitative and qualitative assessments, based primarily on publicly available information. The subjects addressed in the market and technology assessment include (1) a determination of the scope of the rulemaking and equipment classes, (2) manufacturers and industry structure, (3) existing efficiency programs, (4) shipments information, (5) market and industry trends, and (6) technologies or design options that could improve the energy efficiency of the equipment.

See chapter 3 of the preliminary TSD for further discussion of the market and technology assessment.

B. Screening Analysis

DOE uses the following five screening criteria to determine which technology options are suitable for further consideration in an energy conservation standards rulemaking:

(1) *Technological feasibility.* Technologies that are not incorporated in commercial products or in working prototypes will not be considered further.

(2) *Practicability to manufacture, install, and service.* If it is determined that mass production and reliable installation and servicing of a technology in commercial products could not be achieved on the scale necessary to serve the relevant market at the time of the projected compliance date of the standard, then that technology will not be considered further.

(3) *Impacts on equipment utility or equipment availability.* If it is determined that a technology would have a significant adverse impact on the utility of the equipment for significant subgroups of consumers or would result in the

unavailability of any covered equipment type with performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as equipment generally available in the United States at the time, it will not be considered further.

(4) *Adverse impacts on health or safety.* If it is determined that a technology would have significant adverse impacts on health or safety, it will not be considered further.

(5) *Unique-pathway proprietary technologies.* If a design option utilizes proprietary technology that represents a unique pathway to achieving a given efficiency level, that technology will not be considered further due to the potential for monopolistic concerns.

10 CFR 431.4; 10 CFR part 430, subpart C, appendix A, sections 6(b)(3) and 7(b).

If DOE determines that a technology, or a combination of technologies, fails to meet one or more of the listed five criteria, it will be excluded from further consideration in the engineering analysis.

See chapter 4 of the preliminary TSD for further discussion of the screening analysis.

C. Engineering Analysis

The purpose of the engineering analysis is to establish the relationship between the efficiency and cost of automatic commercial ice makers. There are two elements to

consider in the engineering analysis: the selection of efficiency levels to analyze (*i.e.*, the "efficiency analysis") and the determination of equipment cost at each efficiency level (*i.e.*, the "cost analysis"). In determining the performance of higher-efficiency equipment, DOE considers technologies and design option combinations not eliminated by the screening analysis. For each equipment class, DOE estimates the manufacturer production cost ("MPC") for the baseline as well as higher efficiency levels. The output of the engineering analysis is a set of cost-efficiency "curves" that are used in downstream analyses (*i.e.*, the LCC and PBP analyses and the NIA).

DOE converts the MPC to the manufacturer selling price ("MSP") by applying a manufacturer markup. The MSP is the price the manufacturer charges its first customer, when selling into the equipment distribution channels. The manufacturer markup accounts for manufacturer non-production costs and profit margin. DOE developed the manufacturer markup by examining publicly available financial information for manufacturers of the covered product.

See chapter 5 of the preliminary TSD for additional detail on the engineering analysis. See chapter 12 of the preliminary TSD for additional detail on the manufacturer markup.

D. Markups Analysis

The markups analysis develops appropriate markups (*e.g.*, retailer markups, distributor markups, contractor markups) in the distribution chain and sales taxes to convert MSP estimates derived in the engineering analysis to consumer prices, which are then used in the LCC and PBP analysis. At each step in the distribution channel, companies mark up the price of the product to cover business costs and profit margin.

DOE developed baseline and incremental markups for each actor in the distribution chain. Baseline markups are applied to the price of products with baseline efficiency, while incremental markups are applied to the difference in price between baseline and higher-efficiency models (the incremental cost increase). The incremental markup is typically less than the baseline markup and is designed to maintain similar per-unit operating profit before and after new or amended standards.[6]

Chapter 6 of the preliminary TSD provides details on DOE's development of markups for automatic commercial ice makers.

E. Energy Use Analysis

The purpose of the energy use analysis is to determine the annual energy consumption of automatic commercial ice makers at different efficiencies in representative commercial buildings, and to assess the energy savings potential of increased ACIM efficiency. The energy use analysis estimates the range of energy use of automatic commercial ice makers in the field (*i.e.*, as they are actually used by consumers). The energy use analysis provides the basis for other analyses DOE performed, particularly assessments of the energy savings and the savings in consumer operating costs that could result from adoption of amended or new standards.

Chapter 7 of the preliminary TSD addresses the energy use analysis.

[6] Because the projected price of standards-compliant equipment is typically higher than the price of baseline equipment, using the same markup for the incremental cost and the baseline cost would result in higher per-unit operating profit. While such an outcome is possible, DOE maintains that in markets that are reasonably competitive it is unlikely that standards would lead to a sustainable increase in profitability in the long run.

F. Life-Cycle Cost and Payback Period Analyses

The effect of new or amended energy conservation standards on individual consumers usually involves a reduction in operating cost and an increase in purchase cost. DOE used the following two metrics to measure consumer impacts:

- The LCC is the total consumer expense of equipment over the life of that equipment, consisting of total installed cost (MSP, distribution chain markups, sales tax, and installation costs) plus operating costs (expenses for energy use, maintenance, and repair). To compute the operating costs, DOE discounts future operating costs to the time of purchase and sums them over the lifetime of the equipment.

- The PBP is the estimated amount of time (in years) it takes consumers to recover the increased purchase cost (including installation) of more-efficient equipment through lower operating costs. DOE calculates the PBP by dividing the change in purchase cost at higher efficiency levels by the change in annual operating cost for the year that amended or new standards are assumed to take effect.

Chapter 8 of the preliminary TSD addresses the LCC and PBP analyses.

G. National Impact Analysis

The NIA estimates the national energy savings ("NES"), national water savings ("NWS"), and the net present value ("NPV") of total consumer costs and savings expected to result from amended standards at specific efficiency levels (referred to as candidate standard levels).[7] DOE calculates the NES, NWS, and NPV for the potential standard levels considered based on projections of annual equipment shipments, along

[7] The NIA accounts for impacts in the 50 states and U.S. territories.

with the annual energy consumption and total installed cost data from the energy use and LCC analyses. For the present analysis, DOE projected the energy savings, operating cost savings, equipment costs, and NPV of consumer benefits over the lifetime of automatic commercial ice makers sold from 2027 through 2056.

DOE evaluates the impacts of new or amended standards by comparing a case without such standards with standards case projections ("no-new-standards case"). The no-new-standards case characterizes energy use and consumer costs for each equipment class in the absence of new or amended energy conservation standards. For this projection, DOE considers historical trends in efficiency and various forces that are likely to affect the mix of efficiencies over time. DOE compares the no-new-standards case with projections characterizing the market for each equipment class if DOE adopted new or amended standards at specific energy efficiency levels for that class. For each efficiency level, DOE considers how a given standard would likely affect the market shares of equipment with efficiencies greater than the standard.

DOE uses a spreadsheet model to calculate the energy savings and the national consumer costs and savings from each efficiency level. Interested parties can review DOE's analyses by changing various input quantities within the spreadsheet. The NIA spreadsheet model uses typical values (as opposed to probability distributions) as inputs. Critical inputs to this analysis include shipments projections, estimated equipment lifetimes, installed costs and operating costs, annual energy consumption, the base case efficiency projection, and discount rates.

DOE estimates a combined total of 0.324 quads of site energy savings at the max-tech efficiency levels for automatic commercial ice makers. Combined site energy savings at efficiency level 1 for all equipment classes are estimated to be 0.030 quads.

Chapter 10 of the preliminary TSD addresses the NIA.

IV. Public Participation

DOE invites public engagement in this process through participation in the webinar and submission of written comments, data, and information. After the webinar and the closing of the comment period, DOE will consider all timely-submitted comments and additional information obtained from interested parties, as well as information obtained through further analyses. Following such consideration, the Department will publish either a determination that the energy conservation standards for automatic commercial ice makers need not be amended or a NOPR proposing to amend those standards. The NOPR, should one be issued, would include proposed energy conservation standards for the products covered by this rulemaking, and members of the public would be given an opportunity to submit written and oral comments on the proposed standards.

A. Participation in the Webinar

The time and date for the webinar meeting are listed in the **DATES** section at the beginning of this document. Webinar registration information, participant instructions, and information about the capabilities available to webinar participants will be published on DOE's website: *www.energy.gov/eere/buildings/public-meetings-and-comment-deadlines*. Participants are responsible for ensuring their systems are compatible with the webinar software.

B. Procedure for Submitting Prepared General Statements for Distribution

Any person who has an interest in the topics addressed in this document, or who is representative of a group or class of persons that has an interest in these issues, may request an opportunity to make an oral presentation at the webinar. Such persons may submit requests to speak via email to the Appliance and Equipment Standards Program at: *ApplianceStandardsQuestions@ee.doe.gov*. Persons who wish to speak should include with their request a computer file in Microsoft Word, PDF, or text (ASCII) file format that briefly describes the nature of their interest in this rulemaking and the topics they wish to discuss. Such persons should also provide a daytime telephone number where they can be reached.

C. Conduct of the Webinar

DOE will designate a DOE official to preside at the webinar and may also use a professional facilitator to aid discussion. The meeting will not be a judicial or evidentiary-type public hearing, but DOE will conduct it in accordance with section 336 of EPCA (42 U.S.C. 6306). A court reporter will be present to record the proceedings and prepare a transcript. DOE reserves the right to schedule the order of presentations and to establish the procedures governing the conduct of the webinar. There shall not be discussion of proprietary information, costs or prices, market share, or other commercial matters regulated by U.S. anti-trust laws. After the webinar and until the end of the comment period, interested parties may submit further comments on the proceedings and any aspect of the rulemaking.

The webinar will be conducted in an informal, conference style. DOE will present a general overview of the topics addressed in this rulemaking, allow time for prepared general statements by participants, and encourage all interested parties to share

their views on issues affecting this rulemaking. Each participant will be allowed to make a general statement (within time limits determined by DOE), before the discussion of specific topics. DOE will allow, as time permits, other participants to comment briefly on any general statements.

At the end of all prepared statements on a topic, DOE will permit participants to clarify their statements briefly. Participants should be prepared to answer questions by DOE and by other participants concerning these issues. DOE representatives may also ask questions of participants concerning other matters relevant to this rulemaking. The official conducting the webinar/public meeting will accept additional comments or questions from those attending, as time permits. The presiding official will announce any further procedural rules or modification of the above procedures that may be needed for the proper conduct of the webinar.

A transcript of the webinar will be included in the docket, which can be viewed as described in the *Docket* section at the beginning of this document. In addition, any person may buy a copy of the transcript from the transcribing reporter.

D. Submission of Comments

DOE invites all interested parties, regardless of whether they participate in the public meeting webinar, to submit in writing no later than the date provided in the **DATES** section at the beginning of this document, comments and information on matters addressed in this notification and on other matters relevant to DOE's consideration of potential amended energy conservations standards for automatic commercial ice makers. Interested parties may submit comments, data, and other information using any of the methods described in the **ADDRESSES** section at the beginning of this document.

Submitting comments via *www.regulations.gov*. The *www.regulations.gov* web page will require you to provide your name and contact information. Your contact information will be viewable to DOE Building Technologies staff only. Your contact information will not be publicly viewable except for your first and last names, organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

However, your contact information will be publicly viewable if you include it in the comment itself or in any documents attached to your comment. Any information that you do not want to be publicly viewable should not be included in your comment, nor in any document attached to your comment. If this instruction is followed, persons viewing comments will see only first and last names, organization names, correspondence containing comments, and any documents submitted with the comments.

Do not submit to *www.regulations.gov* information for which disclosure is restricted by statute, such as trade secrets and commercial or financial information (hereinafter referred to as Confidential Business Information ("CBI")). Comments submitted through *www.regulations.gov* cannot be claimed as CBI. Comments received through the website will waive any CBI claims for the information submitted. For information on submitting CBI, see the Confidential Business Information section.

DOE processes submissions made through *www.regulations.gov* before posting. Normally, comments will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, your comment may not

be viewable for up to several weeks. Please keep the comment tracking number that *www.regulations.gov* provides after you have successfully uploaded your comment.

Submitting comments via email. Comments and documents submitted via email also will be posted to *www.regulations.gov*. If you do not want your personal contact information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead, provide your contact information in a cover letter. Include your first and last names, email address, telephone number, and optional mailing address. The cover letter will not be publicly viewable as long as it does not include any comments

Include contact information each time you submit comments, data, documents, and other information to DOE. No faxes will be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format. Provide documents that are not secured, that are written in English, and that are free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.

Campaign form letters. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters' names compiled into one or more PDFs. This reduces comment processing and posting time.

Confidential Business Information. Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email two well-marked copies: one copy of the document marked "confidential" including all the information believed to be confidential, and one copy of the document marked "non-confidential" with the information believed to be confidential deleted. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).

V. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this notification of availability of the preliminary technical support document and request for comment.

Signing Authority

This document of the Department of Energy was signed on March 17, 2022, by Kelly J. Speakes-Backman, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an

official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.

Signed in Washington, DC, on March 22, 2022.

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Treena V. Garrett,
Federal Register Liaison Officer,
U.S. Department of Energy.

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